



Cold Climate Housing Research Center

CCHRC

PROGRESS REPORT

GRANT NUMBER: 7310026

COLD CLIMATE HEAT PUMP DEMONSTRATION

COLD CLIMATE HOUSING RESEARCH CENTER

7/1/2013 – 9/30/2013

Deliverables Submitted: No deliverables were submitted this quarter.**Budget:** \$119,467.00**Amount Invoiced:** \$25,644.15**Schedule Status**

Our UAF collaborator has taken a new job with the State of Alaska so we are in the process of working out how we will complete the modeling portion of the grant. Dr. Daanen has already created a 3-D model of the ground loop and the surface treatments. Once we have data we will apply our data to the data generated by the model in order to improve the model. Dr. Daanen will continue to help us in improving the model through the mentoring a UAF student once we have 2 years of data.

We have had to revise our schedule for the heat pump installation, due to the schedule for the building addition and our contractor's summer installation schedule. The heat pump and plumbing have been installed; the system is waiting for electrical power to complete the commissioning.

Percent Complete

	Start Date	End Date	Percent Complete
Thermal Response Test	Sep-12	Oct-12	100%
Heat pump system design	Nov-12	Mar-13	100%
Update monitoring plan	Nov-12	Mar-13	100%
Ground loop installation	Jun-13	Jul-13	100%
Heat pump installation	May-13	Oct-13	90%
Data acquisition system installation	Jun-13	Oct -13	50%
Commissioning	Sep-13	Oct -13	N/A
System monitoring and maintenance Year 1	Sep-13	Sep-14	N/A
System monitoring and maintenance Year 2	Sep-14	Sep-15	N/A
System monitoring and maintenance Year 3	Sep-15	Mar-16	N/A
Data analysis, LCCA, and draft report completion	Apr-16	Jun-16	N/A
Final project report	Jul-16	Jul-16	N/A

Work Progress

Heat Pump Installation – The heat pump and all of its plumbing is installed, we are waiting for the electrician to connect the heat pump to power. This should be complete any day now and the heat pump should be commissioned by the end of October.

Data Acquisition System Installation – The data acquisition system for the ground loop is installed and collecting data. The data system for the interior components is ready to be installed and parts have been put in place, it will be completed as the heat pump installation is complete.

Future Work

Commissioning the heat pump and the data acquisition system should be completed by the end of October 2013. At that point the data collection and analysis phase of the project will begin.